



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

PAGE 1 OF

Data Qualified?
Yes / No

Location/STORET Station Name: Lake Gleason @ Center Date: 8/24/17
(mm/dd/yyyy)
STORET # G2LE0114 WBID: 28936 Latitude: 28.89192
(Decimal Degrees)
County: Volusia RQ-2017-07-24-30 ORG ID: 2IFLCE Longitude: -81.26495
(Decimal Degrees)
Receiving Body of Water: _____ Field ID: G2LE0114

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection	Sampling Equipment			
<u>Leif Roman</u> <u>Katie Williams</u>									☒ Sample Container	☐ Van Dorn	☐ Pole	
									☐ Carboy	☒ Syringe		
									☐ Dipper	☐ Other		
		Equipment ID										
		Collection Method										
Water Level: Dry / Pooled / Low / <u>Normal</u> / High / Flooded		Matrix: <u>Fresh</u> / Marine / DI		Tide Falling: Yes / No / <u>NA</u>								
Meter ID# <u>Betty 67</u>		Photos: Yes / <u>No</u>										

Field Sample

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (umhos/cm)	Temp. (C°)
<u>EST</u>	<u>1225</u>	<u>0.3</u>	<u>1.0</u>	<u>8.3</u>	<u>113</u>	<u>7.5</u>	<u>0.08</u>	<u>1.0(5)</u>	<u>165</u>	<u>31.8</u>
CEN										

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other _____
SBIO ID Numbers: SBIO-ID: 77983 RPS-ID: W/A Macrophyte-ID: 10660 LIMS#: 1922833

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☐ H2SO4			☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Contains
1:1
Sulfuric Acid
SA-7093010
EXP: 04/03/18
Warning!
See SDS

QA/QC Sample Information

Duplicate

Time Zone: EST CEN
Time: 1225

Sample Depth (m): 0.3
Total Depth (m): 1.0

RQ-2017-07-24-30
Date: 08/21/2017

Field ID ↑
STORET ↓

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H ₂ SO ₄			☒ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ < 2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Contains
1:1
Sulfuric Acid
7-93010
4/03/18
Warning!

Blank

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H ₂ SO ₄			☒ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ < 2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

Contains
1:1
Sulfuric Acid
SA-7093010
EXP: 04/03/18
Warning!
See SDS

Note

Field Blank

Field Blank

Lake Gleason @ Center

G2CE0114

Field ID ↑
STORET ↓

Field ID ↑
STORET ↓

RQ-2017-07-24-30
Date: 08/21/2017

RQ-2017-07-24-30
Date: 08/21/2017

Signature:

K Williams

Date:

8/21/17

Field Parameters Entered into LIMS: K Williams 8/29/17
(Initials/Date)

Date Migrated to STORET: _____
(Initials/Date)

Field Parameters QC in LIMS: _____
(Initials/Date)

Field Sheets Scanned/Saved: _____
(Initials/Date)

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Lake Gleason</u>				County:				Date: <u>08/21/17</u>			
Analyst:				Signature:				STORET:			
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold= FLEPPC invasive exotic. It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.								Lake units sampled (circle one group): 1, 4, 7, 10 <u>2, 5, 8, 11</u> 3, 6, 9, 12			
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Acer rubrum	/	/	/	/		Fuirena scirpoides	/	/	/	/	
Alternanthera philoxeroides	/	/	/	/		Gordonia lasianthus					
Amaranthus australis						Habenaria repens					
Andropogon sp.						Hibiscus coccineus					
Azolla filiculoides (A. caroliniana)						Hibiscus grandiflora					
Baccharis sp.	/	/	/	/		Hydrilla verticillata					
Bacopa caroliniana						Hydrocotyle sp.	/	/	/	/	
Bacopa monnieri						Hygrophila polysperma					
Bidens alba						Hymenocallis sp.					
Bidens laevis						*Hypericum fasciculatum	/	/	/	/	
Bidens mitis						*Hypericum hypericoides					
Blechnum serrulatum						*Hypericum myrtifolium					
Boehmeria cylindrica						Ilex cassine					
Brasenia schreberi						Ipomoea aquatica					
Cabomba caroliniana						Ipomoea sagittata					
Canna						Itea virginica					
Centella asiatica						Juncus effusus					
Cephalanthus occidentalis	/	/	/	/		*Juncus marginatus					
Ceratophyllum demersum	/	/	/	/		*Juncus megacephalus <i>Rhyn. tracyi</i>	/	/	/	/	2
Chara sp.						Juncus repens					
Cinnamomum camphora						*Juncus scirpoides					
Cladium jamaicense						Lachnanthes caroliniana	/	/	/	/	
Colocasia esculenta						Leersia hexandra					
*Commelina						Landoltia punctata (Spirodela punctata)					
Crinum americanum						Lemna sp.					
* Cyperus alternifolius (C. involucratus)						Leucothoe racemosa (Eubotrys racemosa)					
Cyperus articulatus						Limnobia spongia					
Cyperus haspan						Limnophila sessiliflora					
*Cyperus lecontei						Liquidambar styraciflua					
*Cyperus polystachyos	/	/	/	/		*Ludwigia arcuata					
*Cyperus odoratus	/	/	/	/		Ludwigia hex-grand-uruguayensis complex**					
*Cyperus surinamensis						*Ludwigia leptocarpa	/	/	/	/	
Cyrtilla racemiflora						Ludwigia (native)					
Decodon verticillatus						*Ludwigia octovalvis					
Diodia virginiana						*Ludwigia peruviana	/	/	/	/	
*Echinochloa crus-galli						*Ludwigia repens					
*Echinochloa muricatum						Ludwigia suffruticosa					
Echinochloa walteri						Luziola fluitans (Hydrochloa carolinensis)					
Eclipta prostrata (E. alba)						Magnolia virginiana					
Eichhornia crassipes						Mayaca fluviatilis					
*Eleocharis						Melaleuca quinquenervia <i>immanis</i>	/	/	/	/	
Eleocharis cellulosa						Micranthemum glomeratum					
*Eleocharis elongata	/	/	/	/		Micranthemum umbrosum					
Eleocharis equisetoides						Mikania scandens	/	/	/	/	
Eleocharis interstincta						Mimosa pigra					
Eleocharis submersa viviparous						Myrica cerifera	/	/	/	/	
*Eriocaulon compressum											
*Eriocaulon decangulare											
Eupatorium capillifolium	/	/	/	/							
Fraxinus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site:						Date: 08/21/17					
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana	/	/	/	/	
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius			/		
*Najas guadalupensis	/	/	/	/		*Schoenoplectus californicus					
*Najas minor	/	/	/	/		*Schoenoplectus pungens					
Nelumbo lutea	/	/	/	/		*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.	/	/	/	/		Scirpus cubensis (Oxycaryon cubense)				/	
Nuphar sp.	/	/	/	/		Scirpus cyperinus					
Nymphaea mexicana	/	/	/	/		*Sesbania					
Nymphaea odorata	/	/	/	/		Solidago sp.					
Nymphoides aquatica	/	/	/	/		Sparganium americanum					
Nyssa sylvatica var. biflora	/	/	/	/		Spartina bakeri					
Orontium aquaticum	/	/	/	/		Spirodela polyrhiza					
Osmunda cinnamomea	/	/	/	/		Taxodium sp.				/	
Osmunda regalis	/	/	/	/		Thalia geniculata					
Panicum hemitomon	/	/	/	/		Thelypteris interrupta					
Panicum repens	/	/	/	/		Thelypteris palustris					
Paspalidium geminatum	/	/	/	/		Triadenum virginicum					
*Paspalum repens	/	/	/	/		Typha sp.	/	/	/	/	
Paspalum urvillei	/	/	/	/		Urochloa mutica (Brachiaria mutica)	/	/	/	/	
Peltandra sp.	/	/	/	/		*Utricularia gibba (U. biflora)	/	/	/	/	
Persea sp.	/	/	/	/		*Utricularia foliosa	/	/	/	/	
Pennisetum purpureum	/	/	/	/		*Utricularia inflata	/	/	/	/	
Phragmites australis	/	/	/	/		*Utricularia purpurea	/	/	/	/	
Pinus elliotii	/	/	/	/		*Utricularia radiata	/	/	/	/	
Pistia stratioides	/	/	/	/		*Utricularia resupinata	/	/	/	/	
Pluchea sp.	/	/	/	/		Vallisneria americana	/	/	/	/	
*Polygonum glabrum (densiflorum)	/	/	/	/		Vitis sp.	/	/	/	/	
Polygonum hirsutum	/	/	/	/		*Websteria confervoides	/	/	/	/	
*Polygonum hydropiperoides	/	/	/	/		Wedelia trilobata (Sphagneticola trilobata)	/	/	/	/	
*Polygonum punctatum	/	/	/	/		Wolffiella spp.	/	/	/	/	
*Polygonum	/	/	/	/		Woodwardia virginica	/	/	/	/	
Pontederia cordata	/	/	/	/		Xyris sp.	/	/	/	/	
*Potamogeton diversifolius	/	/	/	/		Zizania aquatica	/	/	/	/	
*Potamogeton illinoensis	/	/	/	/		Zizaniopsis milacea	/	/	/	/	
*Potamogeton pusillus	/	/	/	/		Vigna	/	/	/	/	
*Potamogeton pectinatus (Stuckenia pectinatus)	/	/	/	/		Utricularia olivacea	/	/	/	/	
Proserpinaca pectinata	/	/	/	/							
*Rhexia	/	/	/	/							
*Rhynchospora corniculata	/	/	/	/							
*Rhynchospora inundata	/	/	/	/	2						
Rhynchospora nitens	/	/	/	/							
Ricciocarpus natans	/	/	/	/							
Sabal palmetto	/	/	/	/							
Sacciolepis striata	/	/	/	/							
*Sagittaria filiformis	/	/	/	/							
*Sagittaria graminea	/	/	/	/							
*Sagittaria isoetiformis	/	/	/	/							
Sagittaria lancifolia	/	/	/	/							
Sagittaria latifolia	/	/	/	/							

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: _____
COUNTY: _____ STORET #: 62080114 LONGITUDE: _____
DATE: _____ TIME: _____ SAMPLING AGENCY: _____
SITE NAME: _____ WBID: 28936
FIELD ID/NAME: _____ LAKE SIZE: _____ RQ: 2017-07-24-31

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : Forest/Natural <u>5</u> Silviculture _____ Field/Pasture _____ Agricultural <u>95</u> Residential _____ Commercial _____ Industrial _____ Other (Specify) _____				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: _____ Land Use Source & Year: _____					
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy				Artificially Impounded ☐ Yes ☐ No					
Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy									
STORMWATER INPUTS <u>4</u>		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16		Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6		Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1	
LAKESIDE ALTERATIONS <u>3</u>		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16		Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11		Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6		Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1	
BUFFER ZONE <u>3</u>		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16		89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6		< 29% of shoreline with >18m buffer 5 4 3 2 1	

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH < 2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High				Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____			
Meter Readings: Top: Depth (M) <u>0.3</u> Temp. (°C) <u>31.4</u> pH (SU) <u>7.5</u> D.O. (MG/L) <u>8.3</u> D.O. Sat. (%) <u>113</u> Cond. (UMHO/CM) <u>145</u> Salinity (PPT) <u>0.08</u> Mid-Depth: _____ Bottom: _____				Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____			
Meter ID: _____				Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid			
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____				SECCHI (M) _____ Total Station Depth (M) <u>1.0</u> VOB ☒			
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: _____ Exp Date: _____ Algal Bloom/Algal ID Sample Taken? ☒ Yes ☐ No Active Vegetation Mgmt? ☐ Yes ☒ No ☐ Don't Know				Sediment Odors: ☐ Normal ☐ Other (Specify): _____ ☐ Anaerobic			
Weather Conditions : <u>Hot, Sunny</u>				Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☒ ☐ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☒ ☐ ☐ ☐			
SAMPLING TEAM: <u>Leif Boman, Katie Williams</u>				SIGNATURE: <u>Katie Williams</u>		DATE: <u>8/21/17</u>	